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EXAMINER	
DELGADO, MICHAEL A	

ART UNIT	PAPER NUMBER
2143	5

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Please find below and/or attached an Office communication concerning this application or proceeding.

PRG

Office Action Summary	Application No.	Applicant(s)	
	09/560,032	RANOUS, ALEXANDER C.	
	Examiner	Art Unit	
	Michael S. A. Delgado	2143	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *29 August 2003* .

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-31* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-31* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 8/29/03 have been fully considered but they are not persuasive. In response to the argument of claim 1, 13, 17 24, 26, an Encapsulator function as defined by the applicant (Page 21, line 25 – Page 22, 10) take a data in its raw form and convert it to a standard form. The data collector of Bullard's invention take data gathered from equipment interface (raw format) and convert to NAR (standard format), (Col 15, lines 45-67). This operation is consistent with the define operation of an Encapsulator

An Aggregator as defined by applicants takes standard form data from multiple source and combine them to produce a reduce form of a standard data, specifically tailored to support a collector or an application (Page 20, lines 19-23). Bullard teaches about a Flow Aggregation Processor (FAP) that takes data from multiple sources to reduce them to one source tailored for a specific application (Col 18, lines 40-50). This operation is consistent with the define operation of an Aggregator.

Data Storage as define by applicant is used to store standard data during processing and for recovery (Page 26, lines 25-31). Bullard teaches about a database management system that is used to store, search and retrieve data (Col 18, line 50-67). This operation is consistent with the define operation of a Data Storage.

The operation of a rule chain is taught in the reference by means of the FAP using a aggregation policy to decide which data sources are combine to create a new standard record (Col 18, lines 40-50).

All the elements for the functioning of the invention are present in the reference. The components are not as integrated as in the case of the applicant but on a whole Bullard's invention produces the same result as the applicant.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-11,13-29 and 30-31are rejected under 35 U.S.C. 102(e) as being anticipated by US Patent No.6,405,251 by Bullard et al.

In claim 1, Bullard teaches about a method for recording network usage, the method comprising the steps of (Fig 1):

defining a network data collector including an encapsulator, an aggregator, and a data storage system (Col 18, lines 39-50);

receiving a set of network accounting data via the encapsulator (Col 18, lines 39-67);

converting the network accounting data set to a standard data format (Col 18, lines 39-67);

processing the network accounting data set via the aggregator, including the steps of defining a rule chain and applying the rule chain to the network accounting data set to construct

an aggregation tree including creating an aggregated network accounting data set (Col 15, line 45-Col 16, line 15), (Col 18, line 39-Col 19, line 30); and

storing the aggregated network accounting data set in the data storage system (Col 19, lines 20-30).

In claim 2, Bullard teaches about a method of claim 1, wherein the step of applying the rule chain to the network accounting data set to construct the aggregation tree includes the step of applying a rule from the rule chain to the network accounting data set to define a 0 group node (Col 15, line 45-Col 16, line 15), (Col 18, line 39-Col 19, line 30).

In claim 3, Bullard teaches about a method of claim 2, wherein the rule is a match rule (Col 17, lines 30-50).

In claim 4, Bullard teaches about a method of claim 1, wherein the step of applying the rule chain to the network accounting data set to construct the aggregation tree includes the step of applying a set of match rules to the network accounting data set to define a hierarchy of group nodes within the aggregation tree (Col 17, lines 30-50).

In claim 5, Bullard teaches about a method of claim 4, wherein the step of applying the rule chain to the network accounting data set to construct the aggregation tree includes the step of applying an aggregation rule to the match group node to create the aggregated network accounting data set. (Col 14, line 53-Col 15, line 25)

In claim 6, Bullard teaches about a method of claim 1, wherein the step of applying the rule chain to the network accounting data set to construct the aggregation tree includes the step of applying a data manipulation rule to the network accounting data set (Col 15, line 45-Col 16, line 15).

In claim 7, Bullard teaches about a method of claim 6, further comprising the step of defining the data manipulation rule to be an adornment rule " enhancement" (Col 15, line 45-Col 16, line 15).

In claim 8, Bullard teaches about a method of claim 6, further comprising the step of defining the data manipulation rule to be a filtering rule (Col 17, lines 30-50).

In claim 9, Bullard teaches about a method of claim 1, wherein the network accounting data set is a set of session data (Col 8, lines 15-38), (Table 1).

In claim 10, Bullard teaches about a method of claim 1, wherein the network accounting data set is a set of usage data (Col 8, lines 15-38), (Table 1).

In claim 11, Bullard teaches about a method of claim 1, further comprising the step of defining a data flush interval; and wherein the step of storing the aggregated network accounting data set includes the step of transferring the aggregated network accounting data to the data storage system after a period of time associated with the data flush interval (Col 14, lines 43-55).

In claim 13, Bullard teaches about a method for recording network usage including correlating of network usage information and network session information, the method comprising the steps of (Fig 1):

defining a network data correlator collector including an encapsulator, an aggregator, and a data storage system (Col 18, lines 39-67);

receiving a set of network session data via the encapsulator (Col 8, lines 15-38), (Table 1);

processing the network session data set via the aggregator, including the steps of defining a first rule chain and applying the first rule chain to the network session data to construct an aggregation tree (Col 15, line 45-Col 16, line 15);

receiving a set of network usage data via the encapsulator (Col 8, lines 15-38), (Table 1);

processing the network usage data set via the aggregator, including the steps of defining a second rule chain and applying the second rule chain to the network usage data and the aggregation tree to construct a correlated aggregation tree (Col 15, line 45-Col 16, line 15);

determining a correlated data set from the correlated aggregation tree (Col 18, lines 39-67); and

storing the correlated data set in the data storage system (Col 18, lines 39-67).

In claim 14, Bullard teaches about a method of claim 13, wherein the network session data set is in a standard data format received from a session data collector having an encapsulator, an aggregator and a data storage system (Col 15, line 45-Col 16, line 15).

In claim 15, Bullard teaches about a method of claim 14, wherein the network usage data set is in the standard data format received from a usage data collector having an encapsulator, an aggregator and a data storage system (Col 15, line 45-Col 16, line 15).

In claim 16, Bullard teaches about a method of claim 13, further comprising the step of defining the first rule set to be different than the second rule set (Col 18, lines 39-67).

In claim 17, Bullard teaches about a method for recording network usage comprising the steps of (Fig 1):

defining a first network data collector including a first encapsulator, a first aggregator, and a first data storage system (Col 15, line 45-Col 16, line 15);

receiving a first set of network data via the first encapsulator (Col 15, line 45-Col 16, line 15);

processing the first network data set via the first aggregator, including the steps of defining an aggregation rule chain and determining a first set of aggregated data by applying the aggregation rule chain to the first set of network data (Col 17, lines 30-50); and

storing the first aggregated network data set in the first data storage system (Col 15, line 45-Col 16, line 15).

In claim 18, Bullard teaches about a method of claim of claim 17, wherein the step of applying the aggregation rule chain to the first set of network data further comprises the steps of:

constructing an aggregation tree (Col 17, lines 30-50); and

determining the first aggregated network data set from the aggregation tree (Col 15, line (Col 17, lines 30-60).

In claim 19, Bullard teaches about a method of claim 18, wherein the step of constructing an aggregation tree further includes the steps of:

defining the first network data set to includes a first network data event and a second network data event (Col 9, lines 46-55), (Col 17, lines 30-50);

applying the aggregation rule chain to the first network data event to construct a hierarchy of group nodes within the aggregation tree (Col 15, line 45-Col 16, line 15), (Col 18, line 39-Col 19, line 30); and

applying the aggregation rule chain to the second network data event to locate similar group nodes according to a predefined set of match rules, if no matching group nodes exist,

extending the hierarchy of group nodes within the aggregation tree by creating additional group nodes (Col 17, lines 30-50), (Col 18, line 39-Col 19, line 30).

In claim 20, Bullard teaches about a method of claim 19, wherein the step of applying the aggregation rule chain to the first network data event further includes the steps of:

defining the aggregation rule chain to include a first match rule for matching source IP address (Col 13, lines 20-30), (Col 8, lines 15-38), (Table 1);

defining the first network data event to include a first source IP address(Col 13, lines 20-30), (Col 8, lines 15-38), (Table 1);

applying the first match rule to the first network data event, including determining whether the aggregation tree includes a first group node matching the first source IP address; and

if a matching first group node does not exist, creating the first group node for the first source IP address (Col 17, lines 30-50).

In claim 21, Bullard teaches about a method of claim 20, wherein the step of applying aggregation rule chain to the first network data event further includes the steps of:

defining the aggregation rule chain to include a second match rule for matching destination IP address (Col 18, line 39-Col 19, line 30);

defining the first network data event to include a first destination IP address(Col 13, lines 20-30), (Col 8, lines 15-38), (Table 1);

applying the second match rule to the first network data event, including determining whether the aggregation tree includes a second group node matching the first destination IP address (Col 18, line 39-Col 19, line 30); and if a matching second group node does not exist,

creating the second group node for the first destination IP address (Col 18, line 39-Col 19, line 30).

In claim 22, Bullard teaches about a method of claim 21, wherein the step of applying the aggregation rule chain to the first network data event further includes the steps of:

defining the aggregation rule set to include an aggregation rule (Col 18, lines 39-67);

defining the first network data event to include a port number and volume of information (Col 8, lines 15-38), (Table 1);

applying the aggregation rule to the first network data event, including copying the port number, source IP address, destination IP address and volume information to the second group node (Col 18, line 39-Col 19, line 30).

In claim 23, Bullard teaches about a method of claim 17, further comprising the steps of:

defining a second network data collector including a second encapsulator, a second aggregator, and a second data storage system (Col 15, line 45-Col 16, line 15);

receiving a second set of network data via the second network encapsulator (Col 15, line 45-Col 16, line 15);

processing the second network data set via the second aggregator, including the steps of defining a second rule chain and applying the second rule chain to the second set of network data to define a second set of aggregated network data (Col 15, line 45-Col 16, line 15); and

storing the second aggregated network data set in the second data storage system (Col 15, line 45-Col 16, line 15).

In claim 24, Bullard teaches about a network usage recording system having a network data collector, the network data collector comprising (Fig 1):

an encapsulator for receiving a set of network accounting data and converting the network accounting data set to a standard data format (Col 15, line 45-Col 16, line 15);

an aggregator for processing the network accounting data set, the aggregator including a defined rule chain, wherein the aggregator applies the rule chain to the network accounting data set to construct an aggregation tree, and determines a set of aggregated network accounting data from the aggregation tree (Col 18, line 39-Col 19, line 30); and

a data storage system for storing the aggregated network accounting data (Col 18, lines 39-67).

In claim 25, Bullard teaches about a system of claim 24, wherein the process of applying the rule chain to the network accounting data performs data reduction on the network data (Col 17, lines 30-50), (Col 18, lines 39-67).

In claim 26, Bullard teaches about a network usage recording system having a network data correlator collector, the network data correlator collector comprising (Col 18, lines 39-67):

an encapsulator, which receives a set of network session data (Col 18, lines 39-67);

an aggregator for processing the network session data set, the aggregator including a defined first rule chain, wherein the aggregator applies the first rule chain to the network session data set to construct an aggregation tree (Col 18, line 39-Col 19, line 30);

wherein the encapsulator receives a set of network usage data, and the aggregator processes the network usage data set, the aggregator including a defined second rule chain, wherein the aggregator applies the second rule chain to the network usage data set and the

aggregation tree to construct a correlated aggregation tree, and determines a correlated data set from the correlated aggregation tree (Col 18, line 39-Col 19, line 30); and

a data storage system for storing the correlated data set (Col 18, lines 39-67).

In claim 27, Bullard teaches about a system of claim 26, wherein the network session data set is in a standard data format received from a session data collector having an encapsulator, an aggregator and a data storage system (Col 8, lines 15-38), (Table 1), (Col 15, line 45-Col 16, line 15).

In claim 28, Bullard teaches about a system of claim 27, wherein the network usage data set is in the standard data format received from a usage data collector having an encapsulator, an aggregator and a data storage system (Col 8, lines 15-38), (Table 1), (Col 15, line 45-Col 16, line 15)..

In claim 29, Bullard teaches about a system of claim 26, further wherein the first rule set is different than the second rule set (Col 18, lines 39-67).

In claim 30, Bullard teaches about a method for recording network usage comprising:

defining a first network data collector including a first encapsulator(Col 15, lines 45-67), a first aggregator (Col 18, lines 40-50), and a first data storage system (Col 18, line 50-67);

receiving a first set of network data via the first encapsulator(Col 15, lines 45-67);

processing the first network data set via the first aggregator(Col 18, lines 40-50), including the steps of defining an aggregation rule chain and determining a first set of aggregated data by applying the aggregation rule chain to the first set of network data (Col 18, lines 40-50);and

storing the first aggregated network data set in the first data storage system (Col 18, lines 50-67);

wherein applying the aggregation rule chain to the first set of network data further comprises:

constructing an aggregation tree(Col 15, lines 45-67); and

determining the first aggregated network data set from the aggregation tree (Col 19, line 10-25);

wherein constructing an aggregation tree further includes defining the first network data set to includes a first network data event and a second network data event (Col 19, line 10-25);

applying the aggregation rule chain to the first network data event to construct a hierarchy of group nodes within the aggregation tree (Col 8, lines 1-38) (Fig. 21); and

applying the aggregation rule chain to the second network data event to locate similar group nodes according to a predefined set of match rules (Col 19, line 10-25), if no matching group nodes exist, extending the hierarchy of group nodes within the aggregation tree by creating additional group nodes (Col 19, line 10-25);

wherein applying the aggregation rule chain to the first network data event further includes:

defining the aggregation rule chain to include a first match rule for matching source IP address (Col 8, lines 1-38), (Fig. 11c);

defining the first network data event to include a first source IP address (Col 8, lines 1-38), (Fig. 11c);

applying the first match rule to the first network data event, including determining whether the aggregation tree includes a first group node matching the first source IP address (Col 8, lines 1-38), (Fig. 11c), (Fig. 18); and

if a matching first group node does not exist, creating the first group node for the first source IP address (Col 19, line 10-25);

wherein applying aggregation rule chain to the first network data event further includes:

defining the aggregation rule chain to include a second match rule for matching destination IP address (Col 19, line 10-25) ;

defining the first network data event to include a first destination IP address (Col 8, lines 1-38);

applying the second match rule to the first network data event, including determining whether the aggregation tree includes a second group node matching the first destination IP address (Col 19, line 10-25); and

if a matching second group node does not exist, creating the second group node for the first destination IP address (Col 19, line 10-25);

wherein applying the aggregation rule chain to the first network data event further includes:

defining the aggregation rule set to include an aggregation rule (Col 19, line 10-25);

defining the first network data event to include a port number and volume of information (Col 8, lines 1-38);

applying the aggregation rule to the first network data event, including copying the port number, source IP address, destination IP address and volume information to the second group node (Col 8, lines 1-38), (Col 19, line 10-25), (Fig. 18).

In claim 31, Bullard teaches about a method of claim 30, further comprising:

defining a second network data collector including a second encapsulator(Col 15, lines 45-67), a second aggregator(Col 18, lines 40-50), and a second data storage system (Col 18, line 50-67) (Fig. 5), (Fig. 14);

receiving a second set of network data via the second network encapsulator(Col 15, lines 45-67);

processing the second network data set via the second aggregator(Col 15, lines 45-67), including:

defining a second rule chain and applying the second rule chain to the second set of network data to define a second set of aggregated network data (Col 16, line 1-15); and

storing the second aggregated network data set in the second data storage system(Col 18, lines 50-67).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claim12 is rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No.6,405,251 by Bullard et al in view of US Patent No.6,199,195 by Goodwin et al.

5. The factual inquiries set forth in *Graham* v. *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

In claim 12, Bullard teaches about a method of claim 1, further comprising the step of defining a rule within the rule chain (Col 22, lines 45-60) but does not teach about a Java object class, which allows additional rule types to be added to the rule chain corresponding to the Java object class. Goodwin teaches about the automatic generation in which Java is used to generate a Java object class that allows additional rule types to be added to the rule chain corresponding to the Java object class (Col 2, lines 20-30).

It would have been obvious at the time of the invention for some one of ordinary skill to use Java programming for its portability. A network system is made up of different network components that operate on there own individual platform. In the case of other program languages, each platform requires its own special program so that it can operate. Maintaining multiple programs, require more effort on the part of the administrator. Because of its portability,

Java is used in these multi-platform environment. A Java program will operate across different platform. Java requires less maintenance and thus increases network productivity.

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US Patent No. 6,230,203 by Koperda et al., teaches about a system and method for providing statistics for flexible billing in a cable environment.

US Patent No. 6,446,200 by Ball et al., teaches about a Service management.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael S. A. Delgado whose telephone number is 703-305-8057. The examiner can normally be reached on 8 AM - 4.30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David A Wiley can be reached on (703)308-5221. The fax phone numbers for the organization where this application or proceeding is assigned are 703-746-7239 for regular communications and 703-746-7239 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)305-3900.

MD
October 17, 2003

DAVID WILEY
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100